

Temperature Conversion

To convert between Fahrenheit ($^{\circ}\text{F}$) and degrees Celsius ($^{\circ}\text{C}$) :

$$T_c = \frac{5}{9} \times (T_f - 32)$$

$$T_f = \left(\frac{9}{5}\right) \times T_c + 32$$

Where: T_c is temperature in Celsius

T_f is temperature in Fahrenheit

To convert between degrees Fahrenheit ($^{\circ}\text{F}$) and Kelvin (K) :

$$T_f = \frac{9}{5} \times (T_k - 273.15) + 32$$

$$T_K = \left(\frac{5}{9} \times (T_f - 32)\right) + 273.15$$

Where: T_f is temperature in Fahrenheit

T_K is temperature in Kelvin

To convert between degrees Fahrenheit ($^{\circ}\text{F}$) to Rankine (R) :

$$T_f = T_R - 459.69$$

$$T_R = T_f + 459.69$$

Where: T_f is temperature in Fahrenheit

T_R is temperature in Rankine

To convert between degrees Celsius ($^{\circ}\text{C}$) to Kelvin (K) :

$$T_c = T_K - 273.15$$

$$T_K = T_c + 273.15$$

Where: T_c is temperature in Celsius

T_K is temperature in Kelvin

To convert between degrees Celsius ($^{\circ}\text{C}$) to Rankine (R) :

$$T_c = \frac{5}{9} \times ((T_R - 459.69) - 32)$$

$$T_R = \left(\frac{9}{5} \times T_c + 32 \right) + 459.69$$

Where: T_c is temperature in Celsius

T_R is temperature in Rankine

To convert between degrees Kelvin (K) and Rankine (R) :

$$T_K = \left(\frac{5}{9} \times ((T_R - 459.69) - 32) \right) + 273.15$$

$$T_R = \left(\frac{9}{5} \times (T_K - 273.15) + 32 \right) + 459.69$$

Where: T_K is temperature in Kelvin

T_R is temperature in Rankine